

REMARKS

Initially, in the Office Action dated September 5, 2003, the Examiner objects to the drawings because Figs. 3A-3C should be designated "prior art". Claims 1-4 and 6-7 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,704,053 (Santhanam). The Examiner states that Claim 5 would be allowable if rewritten in independent form.

Allowable subject matter

Applicant thanks the Examiner for indicating that claim 5 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Drawings Objections

Figs. 3A-3C have been objected to by the Examiner since the Examiner asserts that they should be designated by a legend such as "Prior Art". Applicant has amended these figures in accordance with the Examiner's suggestion and respectfully request that these objections be withdrawn.

35 U.S.C. §102 Rejections

Claims 1-4, 6 and 7 have been rejected under 35 U.S.C. §102(b) as being anticipated by Santhanam. Applicant respectfully traverses these rejections.

Santhanam discloses a compiler that facilitates efficient insertion of explicit data prefetch instructions into loop structures within applications that uses simple address expression analysis to determine data prefetching requirements. Analysis and explicit data cache prefetch instruction insertion are performed by the compiler

in a machine instruction level optimizer to provide access to more accurate expected loop iteration latency information.

Regarding claims 1, 6 and 7, Applicant submits that Santhanam does not disclose or suggest the limitations in the combination of each of these claims of, inter alia, a data prefetch method compiler or program that includes determining values of an indirect reference array used as indices for a program of making indirect reference to an array increase or decrease in accordance with a predetermined rule, and a rate of increase or decrease is within a predetermined range. The Examiner asserts that Santhanam discloses these limitations in the claims of the present application somewhere in Figs. 8-12, col. 4, lines 36-38, col. 11, lines 16-67, col. 12 - col. 22, and col. 23, lines 1-25. Santhanam discloses that "the address expression associated with the reference to array C is not considered affine" (see col. 12, lines 23-45). Therefore, the compiler disclosed in Santhanam does not execute a data prefetch operation about the array C having the address expression considered not affine. Santhanam merely discloses a conventional compiler as disclosed in Applicant's background on page 3, line 1-page 4, line 16, where a conventional compiler does not generate prefetching code for indirect reference (see also Applicant's Figs. 3A-3C). Santhanam does not disclose or suggest determining values of an indirect reference array used as indices for a program of making indirect reference to an array increase or decrease in accordance with a predetermined rule, and a rate increase or decrease is within a predetermined range, as recited in the claims of the present application. Santhanam does not generate prefetching code

for indirect reference and does not disclose or suggest anything related to “a predetermined rule” or “a rate of increase or decrease”, as recited in the claims of the present application.

Regarding claims 2-4, Applicant submits that these claims are dependent on independent claim 1 and, therefore, are patentable at least for the same reasons noted regarding this independent claim.

Accordingly, Applicant submits that Santhanam does not disclose or suggest the limitations in the combination of each of claims 1-4, 6 and 7 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

In view of the foregoing amendments and remarks, Applicant submits that claims 1-7 are now in condition for allowance. Accordingly, early allowance of such claims is respectfully requested.

U.S. Application No. 10/067,243

To the extent necessary, Applicant petitions for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (referencing attorney docket no. 520.41151X00).

Respectfully submitted,

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Attachment: Replacement Sheet